

REMARKS

Claims 1-20 remain in the application.

Claim 4 is amended to correct a typographical error.

Please note that the Office Action Summary sheet in the Disposition of the Claims section only lists claims 1-19; however, the application as filed included claims 1-20.

Allowable Subject Matter:

Claim 20 was neither objected to nor rejected, thus, the allowability of claim 20 is noted.

Specification Remarks:

The Office Action indicates that the above referenced application does not include an abstract. However, the certified copy of the PCT application as filed includes an abstract as evidenced by the accompanying true copy of the PCT filing documents. Note the copy of the postcard that states that the abstract is included, and also note that item 5 of form PCT/ISA/210 indicates that the abstract is approved. Further included is a copy of the Certification seal in addition to the first page and page 18 (Abstract) of a certified copy of the application which was certified on June 22, 2005. Accordingly, it is believed that the application as filed in the US receiving office included the abstract.

Additionally, the Office Action indicates that the first page of the filed application does not have a reference to the PCT application. It is respectfully submitted that under PCT 371 filing protocol it is not necessary to have such reference as the first sentence of the application. Please see the attached copy of a Filing

Receipt with confirmation No. 1655 dated 9/21/2006 stating in the Domestic Priority Data section that priority is claimed by applicant, and also note the attached copy of a corresponding Notice of Acceptance with the same Confirmation No. the acceptance of the Application under 35 USC 371 and 37 CFR 1.495. Accordingly, it is believed that the application as filed in the US receiving office properly claims priority to the PCT application.

Objection to the Drawings:

The drawings were objected to for not showing "the summation of the calculated supply-side power and the secondary side voltage". Applicant respectfully submits that one embodiment of such an element is illustrated as element 55 in FIG. 1. Please see at least page 6, line 20, of applicant's specification. Accordingly, it is respectfully requested that this objection of the drawings should be withdrawn.

Claim Objections:

Claims 3-4, 6, 8-10, 16, and 18-19 were objected to for being unclear.

Claim 4 was objected to for a typographical error. It is believed that the amendment of claim 4 now corrects this error.

Claim 6 was objected to for being identical in scope to claim 9. This objection is respectfully traversed. Please note that claim 9 includes an additional element (a power factor feedback signal) that is not included within claim 6. Thus, the scope of claims 6 and 9 are different.

Accordingly, it is respectfully submitted that this objection to claim 6 should be withdrawn.

Claims 3, 6, 9-10, and 16, were objected to for being unclear. It is respectfully submitted that if a claim is

unclear, a 35 U.S.C. 112 for being indefinite is the proper method to address unclear claims and not an examiner's objection. The Office action indicates on page 3 that the Examiner is not certain how or why the feedback voltage signal is added to the input power signal, and further states that further clarification is requested. It is well established in patent law that the claims are not a technical explanation of how an invention operates or of what elements of a claim make something operate. Applicant refers to the Specification, at least page 6, line 20 through page 7 line 18, for one explanation of how and/or why the feedback voltage signal is added to the input power signal. Accordingly, it is respectfully submitted that this objection to claim 6 should be withdrawn

Claim 8 was objected to for being unclear because the claim discusses dividing an input power signal by the voltage feedback signal. The Office Action states that "the Examiner is not certain how this is integral to applicant's invention." The elements are integral to the invention because they are called for by claim 8. As indicated hereinbefore, the claims do not have to explain to the Examiner how the elements called for in the claim operate or to give a technical explanation of the elements. Applicant refers to the Specification, at least page 12, lines 6-19, for a description of the drawings.

Claims 18-19 were objected to for being unclear. The Office Action states near the bottom of page 3 that "The claims discuss comparing the input power signal to the feedback voltage. As stated above, this does not appear in the drawings and the examiner is uncertain how this concept is related to applicant's invention." The Office Action does not previously state that comparing the input power signal to the feedback voltage is not shown in the drawings. Furthermore, claim 18 calls for the specific elements of "an

amplifier coupled to receive the power signal and the feedback signal and responsively form a voltage on an output of the amplifier". Thus, claim 18 has more detailed elements than referred to in the Office Action.

Additionally, claim 19 includes, "a comparator coupled to receive the current sense signal and the voltage on the output of the amplifier and modulate a duty cycle of the drive pulses". Thus, claim 19 also includes more detailed elements than referred to in the Office action. Thus, claims 18 and 19 do not discuss anything in general terms but call for specific elements coupled in specific ways. As indicated hereinbefore, if the Examiner is unclear as to how these elements relate together, the Examiner is referred to the Specification for a better understanding of the details of the drawings and the operation thereof.

Accordingly, it is respectfully submitted that these objections of claims 3, 6, 8, 9-10, 16, and 18-19 should be withdrawn.

First 35 U.S.C. 103 Rejection:

Claims 1-2, 5, 7, 11, and 15 were rejected under 35 U.S.C. 103 over U.S. patent no. 5,481,730 issued to Brown et. al. ("the '730 patent") in view of U.S. patent no. 5,726,901 issued to Brown et. al. ("the '901 patent"). This rejection is respectfully traversed. Claim 1 calls for, among other things, calculating an input power of a power supply system; and using the input power to regulate an output voltage. Both the '730 and the 901 patents are silent on these elements of claim 1.

First, it is respectfully submitted that the references are improperly combined. The '730 patent does not teach or suggest that the input power should be calculated. Thus, there is no motivation leading one from the '730 patent to the '901 patent. The Office Action states on page 6, that it would have been obvious to combine the references because the '730 patent teaches multiplying the current and voltage to obtain the input power thus it would have been obvious to combine the '901 patent with the '730 patent. However, these statements in the Office Action are not supported by the references. As will be seen further hereinafter, the '730 patent does NOT teach or suggest that the input current and voltage should be multiplied together to calculate the input power. Thus, there is no motivation within the references to combine them. It is respectfully requested that the improper combination be withdrawn.

Even if the references are properly combined, claim 1 includes, calculating an input power of a power supply system, and using the input power to regulate an output voltage. Both the '730 and the '901 patents are silent on these elements of claim 1. The Office Action states on page 4, that the '730 patent "Discloses determining an input voltage and current" and "Using the input voltage and current to regulate an output voltage". The '730 patent teaches that the input voltage and current are monitored and status reports are provided to a computer. The '730 patent is silent on using these signals or the values thereof to calculate the input power. The '730 patent is also silent on using the value of the input power to regulate the output voltage.

Further, the '901 patent is also silent on at least the element of using the calculated input power for regulating the output voltage. Note that the '901 patent teaches using the input power to drive an LED and is silent on using the input power to control the drive pulses of a PWM (See FIG. 1 where the input power is not used by the PWM and in FIG. 2 where the input power is provided to the NE555 timer and not to the PWM). Accordingly, it is respectfully submitted that the combined relied on references are deficient in making claim 1 obvious.

Claim 2 depends from claim 1 and is believed to be allowable for at least the same reasons as claim 1. Additionally, claim 2 calls for using the input power to modulate drive pulses to a power switch of the power supply system. The Office Action indicates on page 4 relating to claim 2 that the '730 patent "discloses that PWM signals may be used to control a power switch". However, claim 2 calls for using the input power to modulate drive pulses. The '730 patent does not teach or suggest these elements of claim 2. It is respectfully submitted that all elements of a claim must be used when examining a claim. Accordingly, it is respectfully submitted that the combined relied on references are deficient in making claim 2 obvious.

Claim 5 includes, among other things, form a power signal representative of an input power and coupling the power supply controller to form drive pulses to regulate the output voltage responsively to the power signal and the feedback signal. Neither of the combined relied on references teach or suggest at least the elements of regulate the output voltage responsively to the power signal and the feedback signal. As indicated in the traversal of the 35 U.S.C. 103 rejection of claim 1, the '730 patent does not teach or suggest form a power signal representative of an input power. Both of the combined references are silent on regulate the output voltage responsively to such a power signal and the feedback signal. Accordingly, it is respectfully submitted that claim 5 is not made obvious by the combined relied on references.

Claims 7 and 11 depend from claim 5 and is believed to be allowable for at least the same reasons as claim 5.

Claim 15 calls for, among other features, an error block of the power supply controller coupled to receive the power signal, a feedback signal, and the current sense signal and responsively control the PWM controller to form the drive pulses. The Office Action states on page 6 at the top under item 3) that the '730 patent discloses "receive the power signal, a feedback signal, and the current sense signal and responsively control the PWM controller" and cites to column 1, lines 56-63, column 3, lines 30-47, column 4, lines 56-67, and column 5, lines 5-29. None of the cited sections teach or suggest using a power signal that is representative of the input power. Just because the '730 patent monitors the signals does not mean that it forms a power signal that is representative of the input power and

forms drive pulses responsively thereto. Additionally, the '901 patent teaches using the input power to drive an LED and is silent on using the input power to control the drive pulses of a PWM (See FIG. 1 where the input power is not used by the PWM and in FIG. 2 where the input power is provided to the NE555 timer and not to the PWM).

Accordingly, it is respectfully submitted that the combined relied on references can not make claim 15 obvious.

Second 35 U.S.C. 103 Rejection:

Claims 4, 12, and 17 were rejected under 35 U.S.C. 103 over the '730 patent in view of the '901 patent and further in view of U.S. patent no. 5,315,533 issued to Stitch et. al. ("Stitch"). This rejection is respectfully traversed. Claim 4 depends from claim 1 and includes all the elements of claim 1 including the elements of calculating an input power of a power supply system, and using the input power to regulate an output voltage. As indicated in the traversal of the 35 U.S.C. 103 rejection of claim 1, the combined '730 and '901 patents are deficient in making obvious these elements of claim 1. Combining the '730 and '901 patents with Stitch does not make up for these deficiencies of the '730 and '901 patents.

Similarly, claims 12 and 17 depend from respective claims 5 and 15 and include all the elements of these respective claims. The deficiencies of the combined '730 and '901 patents relative to claims 5 and 15 are discussed in the traversal of the rejections thereof. Combining the '730 and '901 patents with Stitch does not make up for these deficiencies of the '730 and '901 patents. Accordingly, it is respectfully submitted that the combined relied on references can not make claims 4, 12, and 17 obvious.

Third 35 U.S.C. 103 Rejection:

Claim 14 was rejected under 35 U.S.C. 103 over the '730 patent in view of the '901 patent and further in view of U.S. patent no. 5,502,370 issued to Hall et. al. ("Hall"). This rejection is respectfully traversed. Claim 14 depends from claim 5 and includes all the elements of claim 5. The deficiencies of the combined '730 and '901 patents relative to claims 5 are discussed in the traversal of the 35 U.S.C. 103 rejection of claim 5. Combining the '730 and '901 patents with Hall does not make up for these deficiencies of the '730 and '901 patents.

Fourth 35 U.S.C. 103 Rejection:

Claim 13 was rejected under 35 U.S.C. 103 over the '730 patent in view of the '901 patent and further in view of U.S. patent publication no. 2002/0071301 of inventor Michael John Kinghorn ("Kinghorn"). This rejection is respectfully traversed. Claim 13 depends from claim 5 and includes all the elements of claim 5. The deficiencies of the combined '730 and '901 patents relative to claims 5 are discussed in the traversal of the 35 U.S.C. 103 rejection of claim 5. Combining the '730 and '901 patents with Kinghorn does not make up for these deficiencies of the '730 and '901 patents. Accordingly, it is respectfully submitted that claim 14 is not made obvious by the combined relied on references.

The references cited but not relied upon were reviewed and are believed not to make obvious applicants' invention.

CONCLUSION

Applicant(s) made an earnest attempt to place this case in condition for allowance. In view of all of the above, it is believed that the claims are allowable, and that the case is now in condition for allowance, which action is earnestly solicited.

Although it is believed that no fees are due for this amendment, the Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account 50-1086.

If there are matters which can be discussed by telephone to further the prosecution of this Application, the Examiner is invited to call the undersigned attorney/agent at the Examiner's convenience.

Respectfully submitted,
Francois Lhermite et al., by

Robert F. Hightower

ON Semiconductor
Law Dept./MD A700
P.O. Box 62890
Phoenix, AZ 85082-2890

Robert F. Hightower
Attorney for Applicant(s)
Reg. No. 36163
Tel. (602) 244-5603

Customer #: 64296